Course guides
240ST011 - 240ST011 - Introduction to Supply Chain

Unit in charge: Barcelona School of Industrial Engineering
Teaching unit: 732 - OE - Department of Management.

Degree: MASTER’S DEGREE IN SUPPLY CHAIN, TRANSPORT AND MOBILITY MANAGEMENT (Syllabus 2014).
(Compulsory subject).

Academic year: 2020  ECTS Credits: 5.0  Languages: English

LECTURER

Coordinating lecturer: Benedito Benet, Ernest

Others: Jane Marcet, Juan

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
- CESCTM1. Designing supply chains, or parts thereof, by applying the methods, techniques and tools that are appropriate for each specific function and purpose.
- CESCTM5. Understand the implications for the functioning of supply chains of the phenomena of globalization and changes in the markets.
- CESC1. Analyze and optimize the operations associated with the supply chains of companies and organizations in general, both globally and in each of its parts: supply, distribution, production, transportation, storage and retrieval.
- CESC3. Knowing the risks that may affect the operation of supply chains in globalized environments, as well as methods and tools to reduce and manage these risks.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

All those decisions in the supply chain operations area (production, purchases, distribution) must be designed according to the company’s competitive tone (innovation, flexibility, quality, services, costs).

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Hours small group</td>
<td>15,0</td>
<td>12.00</td>
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<tr>
<td>Self study</td>
<td>80,0</td>
<td>64.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>24.00</td>
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Total learning time: 125 h
## CONTENTS

### Business logistics. Operations Strategy in the supply chain management.

**Description:**

**Full-or-part-time:** 8h  
Laboratory classes: 8h

### Strategic procurement and purchasing

**Description:**

**Full-or-part-time:** 10h  
Laboratory classes: 10h

### Just in time philosophy and techniques. Just in time planning. Lean management

**Description:**
Management criterion JIT. Waste. Management techniques JIT: 5 S's, SMED, SHONINKA, SHOJINKA, JIDOKA, ANDOM, CYCLE TIME, Polyvalence, TPM, KAIZEN, SOIFUKU, ... Similarity with nine western systems. KANBAN techniques. KANBAN types. Serial and sequential JIT supply. Cycle chart. Optimal sequence. Provider parks and consolidation Centres. JIT environment organisation. JIT systems implantation.

**Full-or-part-time:** 7h  
Laboratory classes: 7h

### The Outbound Supply Chain

**Description:**

**Full-or-part-time:** 9h  
Laboratory classes: 9h

### Design of the Supply Chain and supply chain management

**Description:**
Formulation, design and implantation of the SCM strategy inside a company. Environmental determining factors. Competitive factors. Innovation: challenges and deficiencies. Logistic integration matrices. Order penetration point, inventory point, customisation point in the SCM. Decision coherence in the SCM. Main management tendencies in the SCM.

**Full-or-part-time:** 10h  
Laboratory classes: 10h
GRADING SYSTEM

Final mark = 0.5 final exam mark + 0.3 work mark + 0.2 participation

BIBLIOGRAPHY

Basic:

Complementary: