# Logistics and operations management

## Prof. Viviana D’Angelo; Prof. Michele Palumbo

***COURSE AIMS AND EXPECTED LEARNING OUTCOMES***

The course aims at outlining the contribution of logistics and operations management to corporate competitiveness. Students will learn how and why the design of the product itself and of its production and distribution process can drive such performances as productivity, quality, speed, flexibility and cost-effectiveness. They will be instructed on how to carry out an assessment of processes’ current performance and to identify improvement priorities. Lastly, the course will address the most relevant best practices suitable for achieving improvement targets.

At the end of the course students will be:

* familiar with the main concepts and theories concerning logistics and operations management;
* able to analyze logistics and manufacturing processes through the frameworks and concepts learnt during the course;
* able to solve managerial problems in the context of logistics and operations management, collecting relevant data, analyzing it through the concepts and theories addressed during this course and providing insights on the ethical aspects of the problem under analysis;
* able to communicate in a clear and effective way their knowledge, ideas and improvement suggestions to both managers and novices of this field;
* able to keep on learning the topics of logistics and operations management, widening their knowledge and understanding of this subject through the reading of further materials and the real-life experience in challenging contexts.

***COURSE CONTENTS***

* The strategic role of Operations and Logistics in manufacturing and service companies
* Production processes’ typologies
* Overview of the design decisions of an operating system
* Process analysis in manufacturing processes
* Performance measurement in manufacturing companies
* Lean Manufacturing approach
* Supply Chain Management evolution
* Effective and efficient distribution assets: Service Level and Total Logistics Cost
* Stock management in concrete warehousing and handling solutions
* Make or buy choices referred to logistics: tertiarization, outsourcing and strategic partnership
* Transportation: pricing, contract management, pre-invoicing and supplier choice
* Strategic approach to Procurement Sourcing and Supplier Management

***MATERIALS TO STUDY***

***Attending students***

All materials uploaded on Blackboard (slides, cases, readings) will be considered mandatory

***Non attending students***

All materials uploaded on Blackboard (slides, cases, readings) will be considered mandatory

**Slack and Brandon-Jones, Operations Management, Pearson, 9th edition** or **7th edition**

(selected chapters at the end of the document)

***TEACHING METHOD***

The teaching method will be interactive. For each core topic of the course a case-study or a simulation will be used, according to a “learning by doing” approach.

The lessons will be enriched by guest speakers lectures.

***ASSESSMENT METHOD AND CRITERIA***

**Attending students** will be assessed as follows: 50% of the grade though a final written exam which will consist of multiplechoice questions and 1 exercise/case analysis + 50% of the grade based on in class work in group activities.

Up to 2 extra bonus pount can be assigned based in-class activities.

The exam as an attending student can be taken in the first two dates after the end of the course.

**Non attending students** will be assessed through a written exam consisting of multiple choice and open questions, referred to the entire textbook. All questions will be theoretical. No exercise or mini-case will be present in the exam.

At the end of the course, a mock-exam will be uploaded on Blackboard.

***NOTES AND PREREQUISITES***

The course will be taught in English.

**Slack and Brandon-Jones, Operations Management 9th edition**

Chapters to study to take the exam as a NOT attending student:

1 – Operations management

2 – Operations performance

3 – Operations strategy

4 – Managing product and service innovation

6 – Process design

7 – The layout and look of facilities

10 – Planning and control

12 – Supply chain management

13 – Inventory management

16 – Operations improvement

17 – Quality management

17 (supplement) – Statistical process control

**Slack and Brandon-Jones, Operations Management 7th edition**

Chapters to study to take the exam as a NOT attending student:

1 – Operations management

2 – Operations performance

3 – Operations strategy

4 – Process design

5 – Innovation and design in services and products

7 – Layout and flow

10 – The nature of planning and control

12 – Inventory management

13 – Supply chain management

17 – Quality management

17 (supplement) – Statistical process control

18 – Operations improvement