

## 30622 - Production Management

### Syllabus Information

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**Academic Year:** 2019/20

**Subject:** 30622 - Production Management

**Faculty / School:** 109 - Facultad de Economía y Empresa

**Degree:** 432 - Joint Law - Business Administration and Management Programme

**ECTS:** 6.0

**Year:** 5

**Semester:** First semester

**Subject Type:** Compulsory

**Module:** ---

## 1.General information

### 1.1.Aims of the course

This course provides students with concepts, techniques and tools to design, analyze, and improve core operational capabilities, and apply them to a broad range of application domains and industries.

### 1.2.Context and importance of this course in the degree

Once the student has followed the basic subjects to get a global vision about the economy, firms and organizations, Operations Management will provide students with basic skills and knowledge to manage operations decisions, to put them in context with the strategy of each firm, and to make the operations department a source of competitive advantage for firms.

### 1.3.Recommendations to take this course

Class assistance is highly recommended, as well as participation on the activities and assignments handed-out in class.

It is considered that all students on Operations Management properly manage production concepts taught in the subject "Basics of Business Administration and Management".

## 2.Learning goals

### 2.1.Competences

Specific skills:

1. To manage, organize and administrate firms and organizations
2. To know the functioning of Operations Management area and to be able to solve management questions related to it.
1. To prepare advice reports about specific situations related with production decisions in markets, industries, organizations and firms.
2. To understand and to be able to apply professional knowledge and scientific methodologies in solving economic or business related problems.

Cross skills:

1. Problem solving
2. Organization and planning
3. Look for information from different sources and correctly analyze it
4. Decision making
5. Motivation to quality and excellence
6. Capacity to adapt to new situations

Capacity to apply theory to practice

## 2.2.Learning goals

- To know, understand and manage theoretical concepts related to Operations Management: definitions, available options for decision making, techniques and models for problem solving.
- To solve problems related with every fundamental aspect linked with the management, organization and administration of functional production decisions.
- To prepare reasoned reports about complex situations involving production departments on real or simulated firms.

## 2.3.Importance of learning goals

This course will introduce concepts and techniques for design, planning and control of manufacturing and service operations. The course provides basic definitions of operations management terms, tools and techniques for analyzing operations, and strategic context for making operational decisions. It improves their core operational capabilities, and let the students to apply them to a broad range of jobs in the operations field. It is considered that this knowledge is fundamental to get any job related to operations field that implies certain responsibility.

## 3.Assessment (1st and 2nd call)

### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

The student has to show the acquisition of the learning objectives through the following assignments of the global assessment:

**Final exam.** On the examination date proposed by the University for each faculty, the student will make a written exam (on first or second call) consisting of theoretical short question answers, problems to solve and short case studies resolution.

**Management report.** The report will be divided into 3 compulsory hand-outs along the semester, on the dates published on Moodle or the reprography service. Hand-outs will consist on writing reports about the operations management decisions on a real firm, solving typical questions for the content of the subject. Students are required to form teams of 2. This is a strict constraint, and any exception must be previously approved by the instructor. The Global Report and each of the parts will be submitted both physically (printed out and spiral bound), and electronically through the corresponding task open in Moodle. Both submissions have the same deadline. Lacking either the printed or the electronic submission will entail not considering the submission.

**Public presentation of the management report** at the end of the semester, on the dates published on Moodle or the reprography service.

**Active learning and participation** on practical sessions as long as **handing out the tasks and exercises** previously indicated by their lecturer. Practical sessions will consist on solving typical practical exercises for the content of the subject

Evaluation criteria:

Students will have the opportunity to pass the subject both on the first or the second call. In both cases he will choose among being evaluated only through the exam (being its mark the 100% of the final grade) or to be evaluated considering also the activities done along the semester. In this case, percentages over the final grade corresponding to each activity will be the following<sup>[1]</sup>:

**Active learning and participation** on practical sessions as long as **handing out the tasks and exercises** previously indicated by their lecturer. (10%). In this case, it is required that a minimum of 85% of total tasks and exercises proposed by their lecturer had been handed out by the student.

**Management report.** Each hand -out will be worth 10% (so the 3 hand-outs together will worth a total of 30%). It will be graded according to: presentation; writing; structure; operations management reasoning; data interpretation; use of complementary sources of information; final solution given; and explanation of the implications of the proposed solution over the entire firm.

**Oral presentation** about the required part of the global report counts up to 10%

**Global written exam** will be worth 50%

To pass the course (**with a minimum total score of 5 points**), it is required to obtain a minimum grade of 4 over 10 as mean of the global report hand-outs, 4 over 10 at the oral exposition, and 4 over 10 at the global written exam. When a student does not obtain the required grade in at least one of those three parts, the global assessment is the lower of the three separated grades.

If the global written exam mark is higher than the combined one, the global assessment will be the highest (so, the exam mark).

[1] In team assignments the students are allowed to discuss the assignment only with their team members. In individual assignments you should not consult any other student including your team members.

## 4.Methodology, learning tasks, syllabus and resources

### 4.1.Methodological overview

The selection of the assignments that students will work in the Operations Management course pretends to be varied enough to help them to develop the specific skills required to pass the course.

## 4.2.Learning tasks

The syllabus offered to students will be developed through the following methodologies:

1. **Lectures:** to explain the theoretical concepts of the subject
2. **Practical sessions:** to allow to put into practice the theoretical concepts and to help students to develop their skills solving practical exercises and case studies, searching for information, elaborating the global report, and presenting it, etc.

<b>Learning activities</b>	<b>Distribution</b>	<b>Hours</b>
Lectures	2 hours weekly sessions	30
Practical Sessions	2 hours weekly sessions	30
Practical Sessions*	P6	*
Students work focused on the following activities: problem based learning, homework, management report and office hours.		90
<b>TOTAL</b>	<b>6 ECTS</b>	<b>150 hours</b>

## 4.3.Syllabus

### Topic 1: Introduction to Operations Management

- 1.1. Operations Management
- 1.2. The heritage of Operations Management
- 1.3. Operations for services
- 1.4. The challenge of productivity

### Topic 2: Process Design

- 2.1. Process strategies
- 2.2. Process analysis and design
- 2.3. Just in time

### Topic 3: Capacity Planning

- 3.1. Capacity concept
- 3.2. Capacity decisions
- 3.3. Break-even analysis
- 3.4. Applying decision trees to capacity decisions

### Topic 4: Location Decisions

- 4.1. The strategic importance of location
- 4.2. Factors that affect location decisions

- 4.3. Methods of evaluating location alternatives
- 4.4. Service location strategy

**Topic 5: Quality Management**

- 5.1. Quality and strategy
- 5.2. Quality definition, perspectives and costs
- 5.3. International quality standards
- 5.4. Total quality management
- 5.5. The role of inspection
- 5.6. TQM in services
- 5.7. Quality Function Deployment
- 5.8. JIT Quality

**Topic 6: Managing Inventory**

- 6.1. The importance of Inventory and its management
- 6.2. Inventory models for independent demand
- 6.3. Probabilistic Models

**Topic 7: Managing Projects**

- 7.1. The importance of project management
- 7.2. PERT
- 7.3. CPM

**Topic 8: Supply Chain Management**

- 8.1. The supply chain's strategic importance
- 8.2. Global aspects of Supply Chains
- 8.3. Economy and strategy of Supply Chains
- 8.4. Supplier selection. Kraljic Matrix.

**4.4.Course planning and calendar**

Learning and assessment activities

<b>Distribution</b>	<b>ECTS</b>	
In-class activities		2.4
Lectures	2 hours per week	1.2
Practical sessions	2 hours per week P2	1.2
Outside activities		3.6

Final report	14 hours	0.56
Final exam	2 hours	0.08

Autonomous work including test preparation

74 hours

2.96

The assignments and deadlines will be announced at the beginning of the second semester using Moodle or the reprography service. Final examination dates are already published at Faculty's web page.

#### **4.5. Bibliography and recommended resources**