

Degree	Type	Year	Semester
2501573 Economics	OT	4	0

## Contact

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## Use of languages

Principal working language: catalan (cat)

Some groups entirely in English: Yes

Some groups entirely in Catalan: Yes

Some groups entirely in Spanish: Yes

## Prerequisites

Subject development doesn't requires any knowledge prerequisites.

Obviously, all administrative requirements to course the subject must be fulfilled to enroll in the course.

## Objectives and Contextualisation

- To introduce a modern approach to Operations Management as a basement to achieve an integrated management of the company
- To place the production system as the union of procurement, manufacturing and distribution subsystems positioning itself in relation with Finance and Marketing Systems
- To introduce the strategic and operational aspects of the production function
- To know the main decision areas of the operations area
- To know the main tools used to support decisions in the operations area

## Skills

- Apply mathematical instruments to synthesise complex economic-business situations.
- Apply theoretical knowledge to improve relations with clients and suppliers, identifying the advantages and disadvantages of those relations for both sides: company and client or supplier.
- Capacity for adapting to changing environments.
- Capacity for independent learning in the future, gaining more profound knowledge of previous areas or learning new topics.
- Demonstrate initiative and work individually when the situation requires it.
- Identify, justify and reason the appropriate decisions according to the basic parameters of a business problem.
- Organise the work in terms of good time management, organisation and planning.
- Select and generate the information necessary for each problem, analyse it and take decisions based on that information.
- Show motivation for carrying out quality work and sensitivity to the consequences for the environment and society.
- Take decisions in situations of uncertainty, demonstrating an entrepreneurial and innovative attitude.
- Use of the available information technology and adaptation to new technological environments.
- Value ethical commitment in professional practice.
- Work well in a team, being able to argue proposals and validate or reject the arguments of others in a reasoned manner.

## **Learning outcomes**

1. A capacity of oral and written communication in Catalan, Spanish and English, which allows them to summarise and present the work conducted both orally and in writing.
2. Apply algorithmic resolution techniques to optimisation problems.
3. Apply the basic principles of modelling in business decision-making.
4. Assess ethical commitment in professional activity.
5. Capacity to adapt to changing environments.
6. Capacity to continue future learning independently, acquiring further knowledge and exploring new areas of knowledge.
7. Demonstrate initiative and work independently when required.
8. Demonstrate motivation regarding the quality of the work performed and sensitivity regarding the consequences on the environment and society.
9. Differentiate between alternative methods of analysis, and apply the appropriate quantitative tools to resolve business management problems.
10. Make decisions in situations of uncertainty and show an enterprising and innovative spirit.
11. Model the management of business operations by applying quantitative support techniques.
12. Organise work, in terms of good time management and organisation and planning.
13. Select and generate the information needed for each problem, analyse it and make decisions based on this information.
14. Solve problems optimising and obtaining forecasts through information technology applications.
15. Use available information technology and be able to adapt to new technological settings.
16. Use forecasting techniques in business contexts.
17. Work as part of a team and be able to argue own proposals and validate or refuse the arguments of others in a reasonable manner.

## **Content**

### **THEME I - INTRODUCTION TO OPERATIONS MANAGEMENT**

### **THEME II - PROCESS DESIGN AND PLANNING**

### **THEME III - PRODUCTION PLANNING**

### **THEME IV - MATERIALS REQUIREMENT PLANNING**

### **THEME V - PRODUCTION SCHEDULING**

### **THEME VI - INVENTORY MANAGEMENT FOR INDEPENDENT DEMAND PRODUCTS**

## **Methodology**

Through the course the different chapters of the course will be developed.

Usually a series of materials and activities will have to be worked by the student prior to the classes to motivate and improve the comprehension of the subject.

Through each chapter, a series of exercises and activities will be proposed to the students to reinforce the contents. These activities will be developed by reduced groups of students.

Each week the teachers will be available some hours to attend the students individually to solve any doubts they may have (tutorial time).

## **Activities**

Title	Hours	ECTS	Learning outcomes
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**Type: Directed**

Magisterial classes	45	1.8	3, 1, 6, 7, 11, 13, 17, 15, 4
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**Type: Supervised**

Personalized tutorial activities	8	0.32	3, 2, 5, 9, 11, 16, 4
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**Type: Autonomous**

Study of proposed materials, exercises development and suggested activities	92	3.68	2, 6, 9, 10, 14, 13, 17, 16, 15, 4
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## Evaluation

The continuous appraisal will consist in a mid-term exam. The final exam will include all of the contents.

At the end of the course, each professor will publish the final qualifications and the date, time and place of the exam review. In the case of a grade below 4, the student will have to course the subject again the following academic year. For those students with a grade equal or greater than 4 and smaller than 5 a second appraisal will take place. Each teacher will decide the second appraisal methodology. As a result of this second appraisal the maximum grade achieved will be 5. A student not participating in any appraisal activity will be considered as "Not Assessed"

## Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Continuous appraisal	25%	2.5	0.1	3, 2, 5, 1, 6, 9, 8, 10, 14, 13, 17, 16, 15, 4
Final exam	75%	2.5	0.1	3, 2, 5, 1, 6, 9, 7, 11, 12, 10, 14, 13, 15, 4

## Bibliography

**Basic Bibliography:**

- Heizer, I. y Render, B. (2007): Operations Management. 8 ed.. Prentice-Hall.

**Additional Bibliography:**

- Chase, R.B., Aquilano, y N.J. Jacobs, F.R. (2005): Administración de la producción y operaciones, 10<sup>a</sup> edición. McGraw-Hill.
- Companys, R. y Fonollosa, J.B. (1999): Nuevas técnicas de Gestión de stocks: MRP i JIT. 1<sup>a</sup> edición. Marcombo.
- Gaither, N y Frazier, G. (2000): Administración de Producción y Operaciones. 4<sup>a</sup> edición. Thomson Editores.
- Greasley, A. (2005): Operations Management. 1<sup>a</sup> edición. John Wiley & sons
- Miranda Gonzalez, F.J. y otros. (2008): Manual de Dirección de Operaciones. 1<sup>a</sup> edición. Thomson
- Slack, N, Chambers, S, y otros. (1998): Operations Management. 2<sup>a</sup> edición Ed. Pitman Publishing
- Marc J Schniederjans and Qing Cao. (2002) E-Commerce Operations Management. 1<sup>a</sup> edición. World Scientific

- Schroeder, R. G. (2011): Administración de Operaciones. 5<sup>a</sup> edición. McGraw-Hill
- Verge, X. y Martínez J.L.(1992): Estratégia y Sistemas de Producción de las Empresas Japonesas. 1<sup>a</sup> edición. Gestió 2000