



## Teaching Guide

| Identifying Data           |  |               |  |                | 2017/18 |
|----------------------------|--|---------------|--|----------------|---------|
| <b>Subject (*)</b>         | Production and logistics systems management  |               | <b>Code</b>  | 730497009      |         |
| <b>Study programme</b>     | Mestrado Universitario en Enxeñaría Industrial (plan 2012)   |               |  |                |         |
| Descriptors                |  |               |  |                |         |
| <b>Cycle</b>               | <b>Period</b>  | <b>Year</b>   | <b>Type</b>  | <b>Credits</b> |         |
| Official Master's Degree   | 1st four-month period  | Second        | Obligatoria  | 4.5            |         |
| <b>Language</b>            | Spanish  |               |  |                |         |
| <b>Teaching method</b>     | Face-to-face   |               |  |                |         |
| <b>Prerequisites</b>       |  |               |  |                |         |
| <b>Department</b>          | EconomíaEmpresa  |               |  |                |         |
| <b>Coordinador</b>         | Garcia del Valle, Alejandro  | <b>E-mail</b> | alejandro.garcia.delvalle@udc.es                         |                |         |
| <b>Lecturers</b>           | Garcia del Valle, Alejandro<br>Lamas Rodriguez, Adolfo   | <b>E-mail</b> | alejandro.garcia.delvalle@udc.es<br>adolfo.lamasr@udc.es |                |         |
| <b>Web</b>                 |  |               |  |                |         |
| <b>General description</b> | This subject deals with Production Management and Logistics from the point of view of Industrial Engineering |               |  |                |         |

## Study programme competences / results

| Code | Study programme competences / results  |
|------|--|
| A13  | Coñecementos de sistemas de información á dirección, organización industrial, sistemas produtivos e loxística, así como sistemas de xestión de calidade.   |
| A14  | Capacidade para a organización do traballo e a xestión de recursos humanos. Coñecementos sobre a prevención de riscos laborais.  |
| B2   | Que os estudantes saiban aplicar os coñecementos adquiridos e a súa capacidade de resolución de problemas en ámbitos novos ou pouco coñecidos dentro de contextos máis amplos (ou multidisciplinares) relacionados coa súa área de estudo.   |
| B3   | Que os estudantes sexan capaces de integrar coñecementos e enfrontarse á complexidade de formular xuízos a partir dunha información que, sendo incompleta ou limitada, inclúa reflexións sobre as responsabilidades sociais e éticas vinculadas á aplicación dos seus coñecementos e xuízos. |
| B5   | Que os estudantes posúan as habilidades de aprendizaxe que lles permitan continuar estudando dun modo que terá que ser en boa medida autodirixido ou autónomo.   |
| B7   | Falar ben en público.  |
| C1   | Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.  |

## Learning outcomes

| Learning outcomes  | Study programme competences / results |                          |     |
|--|---------------------------------------|--------------------------|-----|
| Knowledge of information systems, industrial management, production systems and logistics.   | AJ13<br>AJ14                          | BJ2<br>BJ3<br>BJ5<br>BJ7 | CJ1 |
| Ability to apply knowledge to solve problems of production and logistics systems.            | AJ13<br>AJ14                          | BJ2<br>BJ3<br>BJ5<br>BJ7 | CJ1 |
| Using tools of information technology and communications for the exercise of the profession. | AJ13<br>AJ14                          | BJ2<br>BJ3<br>BJ5        | CJ1 |

## Contents



| Topic   | Sub-topic  |
|---|--|
| The following blocks or topics develop the contents established in the description of the Verification Memory that are: | Production systems. Work measurement and human resources. Assignment of resources and planning of tasks. Lean Manufacturing. Manufacturing &quot;Just in Time&quot;. Control and quality management. Logistics systems: supply chain management. |
| 1. Introduction. Production and logistic systems.   | .  |
| 2. Plant layout. Assembly line balancing  |  |
| 3. Production Management  |  |
| 4. Quality control and management.  |  |
| 5. LEAN logistics and Just in Time.   |  |
| 6. Logistic systems: Supply Chain Management.   |  |
| 7. Transport Logistics.   |  |

| Planning                        |                        |                                      |                               |             |
|---------------------------------|------------------------|--------------------------------------|-------------------------------|-------------|
| Methodologies / tests           | Competencies / Results | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
| Guest lecture / keynote speech  | A13 A14                | 30                                   | 30                            | 60          |
| ICT practicals                  | A13 A14 B2 B3 C1       | 12                                   | 35.5                          | 47.5        |
| Mixed objective/subjective test | A13 A14 B5 B6 B7       | 3                                    | 0                             | 3           |
| Personalized attention          |                        | 2                                    | 0                             | 2           |

(\*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

| Methodologies                   |   |
|---------------------------------|---|
| Methodologies                   | Description   |
| Guest lecture / keynote speech  | Lectures of the course topics                                 |
| ICT practicals                  | Practical cases solved with software tools: Excel, ExtendSim. |
| Mixed objective/subjective test | Final exam of the subject                                     |

| Personalized attention                           |  |
|--|--|
| Methodologies                                    | Description  |
| Guest lecture / keynote speech<br>ICT practicals | The personal attention will take place in the tutorials. |

| Assessment                      |                        |   |               |
|---------------------------------|------------------------|---|---------------|
| Methodologies                   | Competencies / Results | Description                                       | Qualification |
| ICT practicals                  | A13 A14 B2 B3 C1       | Jobs and case studies solved by PC.               | 25            |
| Mixed objective/subjective test | A13 A14 B5 B6 B7       | Final exam with questions of theory and problems. | 75            |

| Assessment comments |
|---------------------|
|                     |



The "students with recognition of a part-time academic and exemption of assistance" will communicate at the beginning of the course your situation to the teachers of the subject, as established by the "Standard that regulates the dedication to the study of undergraduates in the UDC "(Art.3.be 4.5) and the" Standards for evaluation, review and claim of the qualifications of undergraduate and master's degree (Art. 3 and 8b).Students in this situation will be assessed on the date approved by the School Board, by an objective test consisting of solving exercises on the contents of step 3 of the Guide.

## Sources of information

|                      |   |
|----------------------|---|
| <b>Basic</b>         | <ul style="list-style-type: none"><li>- Ronald H. Ballou (2004). Logística: Administración de la Cadena de Suministro. Pearson Education</li><li>- Richard B. Chase, F. Robet Jabob, Nicholas J. Aquilano (2009). Administración de Operaciones. Producción y Cadena de Suministros. McGraw-Hill</li><li>- Nigel Slack, Stuart Chambes, Robert Johnston (2010). Operations Management. Prentice Hall</li><li>- Jordi Pau Cos, Ricardo de Navasvués (1998). Manual de Logística Integral. Díaz de Santos</li></ul> |
| <b>Complementary</b> | <ul style="list-style-type: none"><li>- Michael Pinedo (1995). Scheduling. Theory, Algorithms and Systems. Prentice Hall</li></ul>  |

## Recommendations

### Subjects that it is recommended to have taken before

Business management/730497010

### Subjects that are recommended to be taken simultaneously

### Subjects that continue the syllabus

### Other comments

(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.