

TEACHING GUIDE

PRODUCTION MANAGEMENT

GRADO EN ADMINISTRACIÓN Y DIRECCIÓN DE EMPRESAS (INGLÉS)

ACADEMIC YEAR 2026-27

Publication date: 25-06-2026



I.-Subject Identification

Type	OBLIGATORIA
Teaching period	2 course, 2Q semester
Nº of credits	6
Language in wich the subject is taught	English

II.-Presentation

The production activity within firms constitutes their fundamental *raison d'être*. Companies produce goods and/or services which they place on the market, and to do so they must coordinate a set of elements that shape their operations and interrelate these with other activities such as financing, marketing, and so forth.

This module addresses knowledge of the functional area of production and operations within the firm, providing students with the necessary tools for the management and direction of productive operations in organisations, considering two distinct yet complementary aspects: strategic and tactical decision-making.

Knowledge of models and quantitative techniques enables efficient decision-making in the operations area, which determines the productive activity of the company.

In this way, the module contributes to the training of professionals capable of performing management roles, such as middle to senior management, in large organisations across industrial, commercial, and service sectors, thereby serving the overall objective of the Degree in Business Administration and Management.

Students are expected to be familiar with the basic concepts related to the introduction to the firm and its functional areas.

III.-Learning outcomes

CI01. Ability to analyse and synthesise: analysis, synthesis, evaluation and decision-making based on relevant information records on the company's position and potential growth.

CI07. Ability to solve problems

CI08. Ability to make decisions

CP04. Critical reasoning skills.

CS01. Ability to study independently.

CPR01. Practical application of knowledge.

CE01. Skills, Knowledge, both basic and specialized on the understanding of the operation, management and control of the different functional areas of the Company Business Organisation

CP04. Ability to use tools of quantitative nature in the capture of managerial decisions

CP06. Strategic vision of the business management

CP08 . Ability to direct operations and organize production

- Key for degrees not adapted to RD 822/21: **CB** - basic competences, **CG** - generic competences, **CE** - specific competences, **CT** - transversal competences.

- Key for degrees adapted to RD 822/21: **CON** - knowledge, **COM** - competences, **HAB** - skills.



IV.-Contents

IV.A.-Syllabus

THEMATIC UNIT I: INTRODUCTION

Lesson 1. Production and Operations Management. Introduction

- 1.1. What is Operations and Production Management?
 - 1.1.1. History of Operations Management
 - 1.1.2. New Trends of Operations Management
- 1.2. Operations Strategy
 - 1.2.1. Content
 - 1.2.2. Process

THEMATIC UNIT II: STRATEGIC DECISIONS IN PRODUCTION AND OPERATIONS MANAGEMENT

Lesson 2. Product Design

- 2.1. Definition of new products development
- 2.2. Product development process
- 2.3. Production techniques for product design

Lesson 3. Production Process

- 3.1. Production process types and strategies
- 3.2. Product-process relationship
- 3.3. Productivity
- 3.3. Production technology

Lesson 4. Production Capacity

- 4.1. Capacity concept and its impact on corporations
- 4.2. Productivity capacity dimensions
- 4.3. Capacity Planning
- 4.4. Capacity management strategies

Lesson 5. Production Location

- 5.1. Conditions determining location decision
- 5.2. Main factors that affect location decisions
- 5.3. Methods of evaluating location alternatives

Lesson 6. Layout Strategy

- 6.1. What is the layout?
- 6.2. Types of layout
- 6.3. Layout design and models

Lesson 7. Human Resources in Production and Operations Management and job design.

- 7.1. Job design study
- 7.2. Job design approach
- 7.3. Job dimension

Lesson 8. Managing Quality

- 8.1. Quality concept
- 8.2. Total Quality Management (TQM)
- 8.3. Quality management models
- 8.4. Quality cost
- 8.5. Quality management tools

THEMATIC UNIT III: TACTICAL DECISIONS IN PRODUCTION AND OPERATIONS MANAGEMENT

Lesson 9. Controlling and Planning in Production and Operations Management

- 9.1. Production control and Planning process
- 9.2. Agregate Planning Strategies. Scheduling
- 9.3. Material requirement planning
- 9.4. Inventory management
- 9.5. Workshop management
- 9.6. Technologies applied to production planning and control



IV.B.-Training activities	
Type	Title
Theoretical sessions	Preparation of lecture classes
Resolution of exercises, problems, case studies	The student will have available exercises and case studies for each lessons to be solved individually.
Group work	The lecturer may propose other activities in addition to those mentioned above, such as video screenings, case studies, guided readings, etc.
Realización de Pruebas	Theoretical and practical assessment tests proposed within continuous assessment.

V.-Student workload	
Theoretical sessions	30
Resolution of exercises, problems, case studies, etc.	25
Practical sessions in experimental, technological and clinical laboratories, fieldwork, etc.	0
Tests and/or exams	5
Academic tutorials	32
Related activities: conferences, seminars, etc.	16
Preparation of theoretical sessions and self-study	30
Preparation of practical tasks, exercises, case studies, projects, etc.	30
Preparation for tests and/or exams	12
Total student workload	180

VI.-Methodology and academic programme		
Type	Period	Content
Academic tutorials	Week 1 to Week 17	Prior communication and request to the lecturer are required.
Theoretical sessions	Week 1 to Week 15	Face-to-face classes. The theoretical content of the module will be developed by the lecturer based on the recommended bibliography. In addition, students will have access to audiovisual supporting materials and other resources to aid in the preparation of the topics.
Practical sessions	Week 1 to Week 15	Practical sessions will consist of problem-solving exercises, case studies, and other activities proposed by the lecturer. These may be carried out individually or in groups.
Tests and/or exams	Week 8 to Week 17	Test 1 will be conducted on the date established by the lecturer during the teaching period and published on the Virtual Classroom. Test 2 will take place on the dates set by the University during the ordinary call (May). The extraordinary call (June-July) will be held in person on the date established by the Faculty.



VII.-Assessment methods

The general assessment method is continuous as established in the *Regulation for the Assessment of Learning Outcomes* of Rey Juan Carlos University.

All the assessment systems established in the degree report must be employed, except for those that have a minimum weight of 0%, which can be used by professors in the academic years they consider relevant. Each assessment system may be applied through one or more assessment activities, consistent with the system. No assessment activity can exceed individually 60% of the overall grade for the subject.

The sum of non re-evaluable activities cannot exceed 40% of the overall grade for the subject and, in general, should not have an established minimum grade (except for practical activities in which, strictly speaking, the conditions of the ordinary call cannot be reproduced in the extraordinary call).

Those students who do not manage to pass the subject in the ordinary call, or do not attend this first call, may attend the extraordinary call only for failed re-evaluable assessment activities.

The distribution and characteristics of the assessment activities are described below.

VII.A.-Description and weight of the assessment activities

The evaluation system within the EEES is the continuous assessment, it means that the student will be evaluated by the work done throughout the whole course, using the activities and tests required by the professor according to the planning. The subject qualification will be determined by the scores obtained in the tests and others activities done by the student, according to the weighting criteria established.

Evaluation activities description and weighting

Evaluation system	Activity	Weight	Minimum grade	Re-assessable in Extraordinary call	Content	Date
1	Individual or group work	10%	4 out of 10	Yes	Each teacher will choose the activities to perform lessons 1 to 9 (between 1-5 assignments)	During the school period
4	Problems solving, case studies, etc.	10%	4 out of 10	Yes	Each teacher will choose the activities to perform lessons 1 to 9 (between 1-5 assignments)	During the school period
3	Theoretical-practical Test 1	40%	5 out of 10	Yes	Lessons 1 to 4/5	Week 8-9
	Theoretical-practical Test 2	40%	5 out of 10	Yes	Lessons 5/6 to 9	Official date fixed by the faculty

Final grade calculation:

- The final grade for the subject is calculated as the weighted average of the marks for the assessment activities, once the minimum mark for the re-evaluable activities has been passed.
- If any of the evaluable tests have not been passed with the minimum mark required to make the average, the final mark for the course will be the lower mark.
- The final grade will be recorded as *Not Attended* ("No Presentado") only if the student does not sit any of the assessed components.
- In order to pass the course, the overall grade must be a 5 or higher.

Extraordinary call:

In the extraordinary call, activities for which the minimum grade was not achieved or for which the student did not participate may be re-evaluated. Tests will be held face-to-face on the date, time, and location published on the URJC examination website.

IMPORTANT: In no case the ordinary and extraordinary tests can be taken online or at the home university of international students. The exams must be taken face to face in Madrid-Vicálvaro Campus.

Anticipated call

A theoretical-practical evaluation test will be carried out on the contents of Lessons 1-9. Weighting 100%. Minimum grade 5 out of 10.

VII.B. Assessment of students with academic exemption from class attendance

Having Academic Exemption from Class Attendance (DAAC) does not imply that students are automatically exempt from participating in the continuous assessment activities or in the training activities of compulsory attendance as established in the teaching guide. Once the exemption has been granted, students must contact the subject's teaching staff, who will propose the adaptations he/she may consider relevant, as long as they guarantee the acquisition and adequate assessment of the learning goals established. Students must maintain adequate communication with the teaching staff so that they may provide information on the dates for training and assessment activities, if these are not established in the programme and available for students at the time of achieving the exemption.

Subject with possibility of academic exemption: Yes.



VII.C. Review of assessment activities

In accordance with the Regulation for the Assessment of Learning Outcomes of Rey Juan Carlos University.

VII.D.-Students with a disability or special educational needs

In order to guarantee equal opportunities, non-discrimination, universal accessibility and academic success, students with disabilities or especial education needs may request curricular adaptations to follow their studies. These adaptations will be provided by the Unit of Attention to People with Disabilities of Rey Juan Carlos University, in accordance with the regulation which regulates the service for the Attention of People with Disabilities at the University. This Unit will issue a report for curricular adaptations, so that students with disabilities or special education needs must contact the service (at e-mail discapacidad.programa@urjc.es) in order to provide relevant information for different educational alternatives.

VII.E.-Academic behaviour, academic integrity and honesty

Rey Juan Carlos University is fully committed to the highest standards of academic integrity and honesty, so studying at the URJC means assuming and subscribing to the values of integrity and academic honesty set out in the University's Ethical Code. To support this process, the University has Rey Juan Carlos University's Academic Conduct Regulation as well as different tools (anti-plagiarism, supervision...) that offer a collective guarantee for the full development of these essential values.



VIII.-Teaching resources and materials

Basic bibliography

Title: Principles of Operations Management (Pearson International edition) Author: Jay Heizer, Barry Render Publisher: Pearson

Title: Fundamentals of Operations Management Author: Davis, M.; Aquilano, N.; Chase, R. (2001) Publisher: McGraw Hill, 4th ed.

DECISIONES ESTRATÉGICAS DE LA DIRECCIÓN DE LA PRODUCCIÓN Y OPERACIONES. Arias Aranda y Minguela Rata (2024). Pirámide.

Title: Dirección de Producción y Operaciones. Una visión práctica. Author: Martín Peña, M.L. y otros (2013) Publisher: Delta

Consultation bibliography

Title: Fundamentos de Dirección de Empresas Author: Iborra, M.; Dasi, A.; Dolz, C.; Ferrer, C (2007) Publisher: Thomson

IX.-Professors

Name and surname	FABIOLA GÓMEZ JORGE
E-mail address	fabiola.gomez@urjc.es
Department	Economía de la Empresa
Campus	Madrid - Vicálvaro
Category	Profesor/a Ayudante Doctor/a
Academic degree	Doctor
Person responsible for the subject	Yes
Tutorial timetable	Para consultar las tutorias póngase en contacto con el/la profesor/a a través de correo electrónico
Number of quinquennia	1
Number of sexennia	0
No. of positive evaluations by Docencia	1

