

Academic Year: ( 2022 / 2023 )

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Department assigned to the subject: Business Administration Department

Coordinating teacher: ALVAREZ GIL, MARIA JOSEFA

Type: Compulsory ECTS Credits : 6.0

Year : 5 Semester : 1

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Speaking and writing of English

specific prerequisites for this course: Basic knowledge of economics, business administration, corporate finance, and accounting.

## OBJECTIVES

Development of individual learning routines via the analysis of relevant texts and the collection and analysis of recent real evidence.

- . Development of group-based learning routines via group-based discussion and the oral and written presentation of work by teams.
- . Development of verbal and written communication skills.
- . Develop the ability to raise questions and answer them

Knowledge:

- Know and understand the objectives and strategies of the Operations Management.
- Know and understand the main concepts and models associated with quality.
- Know and understand the foundation of the design and development processes of goods and services.
- Know and understand the processes of generation of goods and services and the corresponding distribution in plant of the facilities.
- Know and understand decisions about location and capacity.
- Know the planning of the necessary resources in the generation of goods and services.
- Apply all the previous points to problem solving.

Abilities:

- Ability to make decisions.
- Ability to work individually, prioritizing the accuracy and precision of the results.
- Capacity for teamwork.
- Ability to relate to others.
- Ability to adapt to new situations.
- Ability to accept other points of view.

Attitudes:

- Ability to search and curiosity.
- Have an enthusiastic attitude to solve problems.
- Defend and justify certain actions.

## DESCRIPTION OF CONTENTS: PROGRAMME

The objective of the course is to introduce students to the Strategic Decision Making Processes related to the Operations Management area. For this purpose, the strategies of the Operations Department are studied and analyzed; the strategic decisions that accompany the different processes of generation of goods and services are presented as well as the strategic decisions of location, capacity and distribution of the facilities. To help in these decision-making processes, the knowledge that students may have previously acquired regarding demand estimation and project management is reinforced. In accordance with the demands of society, concepts like sustainability, industry 4.0, SDGs, and Circular Economy in

Spain and Europe, are included.

1. Introduction to Operations Management.
2. Strategic Operations Decisions
3. Project Management
4. Strategic decisions on total quality management
5. Strategic decisions on process design, Industry 4.0, Capacity, and Circular Economy
6. Strategic decisions on location and lay-out
7. Design of goods and services, sustainability, and SDGs

## LEARNING ACTIVITIES AND METHODOLOGY

AF1: theoretical-practical classes. In them we present the knowledge that we hope students acquire. The students will receive the class notes and will have basic reference texts to facilitate the preparation of the virtual classes (flipped classroom approach) and their follow-up and development of the subsequent continuous assessment work. In the small group sessions, questions will be answered about the exercises proposed by the teacher and workshops and assessment tests will be enabled to facilitate the acquisition of the necessary skills.

AF2: tutoring. Individualized and group assistance through specific open sessions through blackboard collaborate.

AF3: individual or group work of the student

MD1: Theory Class: classroom lectures by the lecturer (virtual on the covid19 stage) in which the main concepts of the subject are developed and materials and bibliography are provided to complement student learning.

MD2: Practices: resolution of mini-practical cases, exercises, readings, viewing of videos proposed by the lecturer to be carried out individually and in work teams.

MD3: Tutorials: 4 hours per week are dedicated, upon request of the student, which are developed with the virtual computer applications provided by the Carlos III University of Madrid. It is personalized and in-group assistance.

All course material will be available through Aula Global, including a selection of academic articles.

## ASSESSMENT SYSTEM

<b>% end-of-term-examination/test:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

In order to evaluate the knowledge, skills and abilities achieved by students of the course, we will use a continuous assessment mechanism and a final exam.

In the continuous assessment mode, two types of tests are developed:

a.- 2 multiple-choice tests with practical content, each with a maximum score of 25% of the total grade for the subject (maximum total score: 50%)

b.- 2 deliveries of team work, with theoretical/practical content, with a maximum score of 25% of the total grade for the subject each (maximum total score: 50%)

Those students failing to pass any of the 4 proofs can take a complementary test focusing in the corresponding four sections, i.e., test1, test2, deliveries 1, and deliveries 2.

Students need to participate in all grading components. Not participating in one or more of the grading components leads to an overall "fail" and immediately results in a final ordinary exam.

Regarding the ordinary and extraordinary final exams, both are designed to serve students who have not followed the continuous assessment. Its contents correspond to the syllabus seen during the course and the exams will consist of Theory and Practice. The weight of each of them in the composition of the final grade is as follows: THEORY 50% and PRACTICE 50%. This approach is also followed in the extraordinary examination.

The grade obtained in the ordinary exam can never lead to a final score higher than that included in the UC3M evaluation standards in this regard.

The grade obtained in the extraordinary exam may be worth up to 100% of the final grade in the extraordinary call.

## BASIC BIBLIOGRAPHY

- Heizer, Jay; Render, Barry, Dirección de la producción y de operaciones. Decisiones estratégicas, 11a edición, Pearson, 2015

- David Bamford and Paul Forrester Essential Guide to Operations Management, Wiley, 2012

#### ADDITIONAL BIBLIOGRAPHY

- Alfalla Luque, R. García Sánchez, R., Garrido Vega, P., González Zamora, MM., Sacristán Díaz. Introducción a la dirección de operaciones táctico-operativa, Delta Publicaciones, 2008

- Andrew Greasley Operations Management, 2nd Edition, Wiley, 2009

- Chase, Jacobs, Aquilano Administración de Operaciones, Producción y Cadena de Suministros, McGraw Hill, 2009

- David Bamford, Paul Forrester Essential Guide to Operations Management: Concepts and Case Notes, Wiley, 2009

- Domínguez Machuca, Alvarez Gil, García González, Domínguez Machuca y Ruiz Jimenez. Dirección de Operaciones: aspectos estratégicos en la producción y en los servicios, McGraw Hill, 1994

- Fernández E., Avella, L., Fernández, M. Estrategia de Producción, McGraw Hill, 2003

- Jack R. Meredith Operations Management, 4th Edition, Wiley, 2010

- Jack R. Meredith, Samuel J. Mantel Project Management: A Managerial Approach, 7th Edition, Wiley, 2009

- John Mangan, Chandra Lalwani, Tim Butcher. Global Logistics and Supply Chain Management, Wiley, 2008

- Miranda González, Rubio Lacobna, Chamorro Mera, Bañegil Palacios Manual de Dirección de Operaciones, Thomson, 2005

- R. Dan Reid, Nada R. Sanders Operations Management: An Integrated Approach, 4th Edition, Wiley, 2010

- Roberta Russell Operations Management: Creating Value Along the Supply Chain, 7th Edition, Wiley, 2011

- Samuel J. Mantel. Project Management in Practice, Wiley, 2011