

Academic Year: ( 2024 / 2025 )

Review date: 25-04-2024

Department assigned to the subject: Business Administration Department

Coordinating teacher: ALVAREZ GIL, MARIA JOSEFA

Type: Compulsory ECTS Credits : 6.0

Year : 4 Semester : 1

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

Speaking and writing of English.

Good level of Spanish (B2 o superior).

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. Special attention is devoted to CS3D.

1. Introduction to Operations Management, SDGs, Sustainability and CS3D, Circular Economy and Strategic Decisions in Operations
2. Introduction to Project Management
3. Strategic Decisions on Design of Goods and Services and Total Quality Management Systems
4. Strategic Decisions on Process Design and Industry 4.0
5. Strategic decisions on capacity and plant layout
6. Strategic decisions on localization and international project management 8.

## LEARNING ACTIVITIES AND METHODOLOGY

The knowledge and attitude competencies will be acquired by the students through master classes, practical classes for solving exercises, the individual performance of exercises, and teamwork for the resolution of cases. Skills will be developed through individual work, classroom participation, and collaboration with peers. The course will have the following development: Students will receive information via Global Classroom 2 about the theoretical and practical contents of the subject. The principles of the teaching approach of flipped learning will be applied, students are provided with the guides to follow to study the different chapters of the program and in the master and reduced classes possible doubts are discussed and knowledge deepened. The exercises to be developed individually are linked to the topics of the syllabus, that is, the preparation of each student's own study material. Teamwork is developed ... The teamwork will be carried out in the third and fourth months of the semester, in accordance with the instructions provided by the coordinator of the subject. Students will be attended during the tutoring schedules, always by appointment. Queries made electronically will be dealt with electronically during the hours of consultation indicated by each teacher, which are indicated on the subject page in the Aula Global Classroom.

Af1: theoretical-practical classes. They present the knowledge that students need to acquire. They will receive class notes and will have basic reference texts to facilitate the preparation and monitoring of the flipped classroom methodology and the development of teamwork. In the sessions of the small groups, doubts about the exercises proposed by the teacher will be addressed.

AF2: tutorials. One-on-one and group support through dedicated sessions open through Blackboard Collaborate.

AF3: individual and/or group work of the student

MD1: Theory Class: presentations by the teaching staff in which the main concepts of the subject are developed and the teaching elements are provided to prepare the material for each student.

MD2: Practices: Resolution of mini-practical cases, exercises, readings, viewing of videos proposed by the teacher to be executed individually and in work teams.

All the course material will be indicated and with access codes in Aula Global, including a selection of academic articles.

MD3: Tutorials: 4 hours per week, upon request of the student, which are developed with the virtual computer applications provided by the UC3M.

## ASSESSMENT SYSTEM

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

The knowledge, skills, and abilities achieved by students will be evaluated through a continuous evaluation mechanism consisting of a first exam with theoretical-practical content that will take place in the seventh week of the semester, and a second exam to be developed on the date officially set by UC3M. Both tests are of the multiple-choice test modality. The content of the first test includes the first three chapters of the program and accounts for 40% of the total grade of the subject. The content of the second test includes the last three chapters of the program and accounts for 60% of the total grade of the subject. The UC3M evaluation rules regarding the maximum score to be obtained in the final ordinary exams are respected. To pass the first test, a minimum mark equal to or greater than 2.5 points out of a total of 4 and a mark of 3.5 out of 6 in the second test is required. Both tests must be passed in order to pass the subject. For those who do not pass the minimum evaluation in any of the aforementioned tests, the option of attending the extraordinary exam is offered, to be held in June 2025 on the date set by UC3M. This exam includes the content of the subject taught during the course and the maximum score to be obtained may never exceed the limits established in the UC3M regulations in this regard.

The improvement of the grade of those students who pass the subject with a grade equal to A

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

(sobresaliente) to A + (matrícula de honor) is achieved by adding to the grade previously obtained up to a maximum of 1 point resulting from the assessment of the attendance and participation in class of these students.

#### BASIC BIBLIOGRAPHY

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- Kumar, A., Garza-Reyes, J. A., & Khan, S. A. R. (Eds.) Circular Economy for the Management of Operations, CRC Press, 2020
- Modak, P. Practising circular economy, CRC Press, 2021
- Alqahtani, A. Y., Kongar, E., Pochampally, K. K., & Gupta, S. M. CRC press. Responsible Manufacturing: Issues Pertaining to Sustainability, CRC press, 2019
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#### 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
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- 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
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