

Academic Year: (2023 / 2024)

Review date: 28/04/2023 17:22:07

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, SDGs and Sustainability
2. Operations Management and Circular Economy
3. Strategic Decisions in Operations
4. Strategic Decisions on Process Design and Industry 4.0
5. Strategic Decisions on Design of Goods and Services and Total Quality Management Systems
6. Strategic decisions on capacity and plant layout
7. 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 lectures, practical classes to solve exercises, individual performance of exercises, and team work to solve cases. Skills will be developed through individual work, classroom participation and collaboration with peers. The course will be developed as follows:

Students will receive information via Aula Global 2 on the theoretical and practical contents of the subject. As far as possible, the principles of the flipped classroom approach will be applied. That is to say, students are provided with the guides to follow to study the different chapters of the program and in the lectures and small classes possible doubts are discussed and knowledge is deepened. The practical exercises to be developed by the students individually are linked to the topics of the syllabus and the practices carried out in small groups. The team work will be developed throughout the term according to the instructions provided by the coordination of the subject. The methodology to be used for the team work will be based on the case method.

The professors of the course will attend to the students in the tutoring schedules always by appointment, always looking for the best allocation of resources.

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

AF2: tutorials. Individual and group assistance through specific open sessions through blackboard collaborate.

AF3: individual and/or group work of the student.

MD1: Theory class: class presentations by the professor (virtual in the covid19 scenario) in which the main concepts of the subject are developed and materials and bibliography are provided to complement student learning.

MD2: Practicals: resolution of mini-case studies, exercises, readings, viewing of videos proposed by the professor to be carried out individually and in teams.

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

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

ASSESSMENT SYSTEM

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

To evaluate the knowledge, skills and abilities achieved by students in the course, we will use two options: a continuous evaluation mechanism and a regular comprehensive exam. Students will have a period of 30 calendar days to confirm which of these options they will follow. Those who opt for continuous evaluation will not have the option of taking the regular comprehensive exam. Likewise, those who opt for the single evaluation by means of an ordinary global exam will not have to take the

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

tests of the continuous evaluation modality.

In the continuous evaluation mode, two types of tests are developed: multiple-choice exercises (2) and group work (2).

Regarding the multiple-choice multiple-choice test exercises and theoretical-practical content, each one can offer a maximum score of 25% of the total grade of the subject.

Regarding the 2 group work deliveries, with theoretical-practical contents, each one can offer a maximum score of 25% of the total grade of the subject. The evaluation criteria will be distributed together with the necessary material to be able to carry out the work.

VERY IMPORTANT NOTE Passing the course requires passing each and every one of these four tests, without considering the option of averaging grades between one test and another. In other words, each of the four tests must be passed. In order to pass each test, a grade greater than or equal to 50% of the maximum possible score for that test must be obtained. For those who do not pass the minimum evaluation in any of the four tests mentioned above, the possibility is offered of taking a complementary theoretical-practical test focused on the sections not passed in the continuous evaluation. This complementary test will be held at the same time as the regular comprehensive examination.

All students who opt for the continuous evaluation modality must take these four tests. In the hypothetical case that a student does not pass one or more of the tests after taking the complementary test, it will be considered that the subject has not been sufficiently passed and the student will have to take the final or extraordinary exam with the totality of the subject matter. (In other words, partial passes will not be kept).

Regarding the ordinary global exam, this is designed to attend those who have not opted for the continuous evaluation modality. Its content will be the syllabus seen during the course and the exams will consist of two sections: Theory and Practical. The weight of each of them in the composition of the final grade is as follows: THEORY 50% and PRACTICAL 50%.

The maximum score to be obtained in the ordinary comprehensive exam may never exceed the limits established in the UC3M regulations in this regard. The ordinary comprehensive exam is not the way to improve the final grade of the subject.

Percentage weight of the Global Ordinary Exam: 0 Percentage weight of the rest of the evaluation: 100

Students who do not pass the course in either of these two options have the possibility of taking the final exam, or extraordinary exam, on the date set by the University. This exam covers 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 final or extraordinary exam is the mechanism to improve the grade of those who have already passed the course with a grade equal to outstanding and want to demonstrate that they can opt for the best grade. In these cases, from the coordination of the subject will be specified to those interested, the characteristics of the test to be performed.

BASIC BIBLIOGRAPHY

- Heizer, Jay; Render, Barry, Dirección de la producción y de operaciones. Decisiones estratégicas, 11a edición, pearson, 2015
- -Kumar, A., Garza-Reyes, J. A., & Khan, S. A. R. (Eds.) Circular Economy for the Management of Operations, CRC Press, 2020
- -Modak, P. Prsacting 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
- Beckford, J. Quality Management: Reconsidered for the Digital Economy, Taylor & Francis, 2022
- David Bamford and Paul Forrester Essential Guide to Operations Management, Wiley, 2012
- Gardiner, D., & Reefke, H. Operations management for business excellence: building sustainable supply chains., Routledge, 2019
- Heizer, J., Render, B., & Munson, C. Operations Management: sustainability and supply chain management, Pearson, 2017
- Nicholas, J. M., & Steyn, H. Project management for engineering, business and technology., Taylor and Francis, 2017
- Nunes, B., Batista, L., Masi, D. and Bennet, D. Sustainable Operations Management, Key Practices and Cases, Routledge, 2022

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